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Calliope ㉒.

Mean Solar Time of Observation.		Apparent R.A.	Apparent N.P.D.
	h m s	h m s	° ′ ″
1859, Feb. 22	14 34 38·3	12 44 28·86	74 31 44·49
23	14 30 12·1	12 43 58·43	74 25 49·19
24	14 25 44·5	12 43 26·68	74 19 55·00
24	14 21 16·2	12 42 54·21	74 14 2·53

Harmonia ㊵.

Mean Solar Time of Observation.		Apparent R.A.	Apparent N.P.D.
	h m s	h m s	° ′ ″
1859, Jan. 22	13 51 10·0	9 58 40·10	72 30 25·05
Feb. 22	11 19 7·3	9 28 25·68	69 8 59·42
23	11 14 14·2	9 27 28·39	69 4 5·90
24	11 9 22·0	9 26 31·87	68 59 26·25

Jan. 22.—This object is not quite so certain to be the planet as the others.

Isis ㊷.

Mean Solar Time of Observation.		Apparent R.A.	Apparent N.P.D.
	h m s	h m s	° ′ ″
1859, Feb. 23	12 43 57·6	10 57 26·45	70 0 44·45

Pales ㊾.

Mean Solar Time of Observation.		Apparent R.A.	Apparent N.P.D.
	h m s	h m s	° ′ ″
1859, Jan. 28	11 17 50·9	7 48 35·19	69 40 3·64
31	11 3 34·0	7 46 5·60	69 36 22·46
Feb. 23	9 20 1·2	7 32 56·64	69 21 20·43

Extracts from a Letter to Mr. Carrington, from Dr. C. H. F. Peters, of Hamilton College, U. S.

"... I write to-day only in haste, that I may not delay giving you the information desired. I am going to copy and send you soon the whole set of computed positions of the solar spots observed by me. ... My heliographic longitudes *are corrected in a direction opposite to the direction of rotation;* so that, looking from the sun's centre in the direction, for example, of the first point of *Aries*, greater and greater longitudes come into that direction. Your beautiful remark on the longitude-drift of spots being opposite in higher and lower latitudes is therefore completely confirmed also in sign by my observations (at least as far as I see from the Table B which you mention). This remark seems to me of no little importance, disclosing a fact which (as a cause or as a consequence ?) may have something to do with the two belts of spots situated

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at or near the border of the opposite currents. . . . In latitudinal sense, however, I cannot make agree my observations with what yours seem to indicate. Besides the latitudes of spots exhibited in my Table A (and these are *all* the spots observed during a whole, or rather, more than a half, revolution), which indicate, as it seems, an unexceptional drift towards the equator, I have just examined in this respect the individual positions of the totality of spots before me; and though, with more leisure, the single isolated spots ought to be discriminated from the participants of systems, I write, in the annexed paper, an abstract presenting a general survey of the motions in latitude. In drawing inferences from individual positions, a good allowance must be made for the mean error of the observations. But, on the whole, I do not recognise in the annexed conspectus a regular law depending on the distance of the spots from the equator. . . . Distracted in the latter years by other business, I have not done anything more upon solar spots. Your researches, however, as published from time to time, have kept up with me a lively interest for this subject; and I think I may take it up again, when the measuring apparatus for my refractor is in order; though, to be sure, the fine climate of Italy offers a much greater reward for this kind of work."

Note.—I would remark that, in my paper printed in the *Monthly Notices* for January, when I spoke of a reverse current in the higher latitudes, I did not affirm the existence of advancing and retrograde motions in longitude absolutely, but as exhibited by the use of a mean period of rotation. I have not yet concluded that the drift of all spots is not in the direction of the general rotation, the drift being, in that case, most rapid in the region of the equator of the sun; and with respect to Dr. Peters's result of the drift in latitude being general towards the equator, I may here remark that M. Laugier came to the opposite conclusion, and that my own examination would seem to explain the possible origin of the difference between two observers so capable and so exact; for it may well be that the critical latitudes at which the directions of drift in latitude change sign may be different at different epochs. The question is rather a minute one, when the possible errors of observation are considered, and at present requires the expenditure of more labour and investigation.—[R. C. C.]

Hofrath Schwabe has recently communicated to the *Astron. Nach.* his customary abstract of his enumerations of spots for the previous year. From observations on 335 days in the year 1858, he recorded the passage of 188 groups of spots, and on no day found the disk free of spots. The increase of action over that of 1857 is very decided, and such as was anticipated. The next maximum may be predicted for the year 1860.

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